

REMARKS

Claim 1 has been amended. Claims 17-18 have been added. Claims 1-18 remain for further consideration. No new matter has been added.

A proposed drawing amendment is also enclosed amending FIGs. 1-3.

The objections and rejections shall be taken up in the order presented in the Official Action.

1. Acknowledgement of entry of the preliminary amendment is noted and appreciated.
2. Proposed drawing amendments to FIGs. 1-3 are enclosed herewith.
3. The title has been amended.
- 4-5. Claims 3-7, 12, 13 and 16 currently stand rejected under 35 U.S.C. §112, first paragraph for allegedly failing to comply with the written description requirement.

As known, if the characteristics of the transmission channel vary independently from the distance between the signal source and the signal detector, then there are too many unknowns to solve for given the measurements available. That is, it is similar to solving for two unknowns using just a single equation. Therefore, if the distance values, the channel characteristics are held constant, and visa versa. These engineering principles are very well known in the art. Arrangement of conductor tracks on substrates is also well known, so stating that conductor tracks are arranged on a substrate is clearly meets the statutory requirements.

6-7. Claims 1, 2, 5, 6, 11 and 13 currently stand rejected under 35 U.S.C. §103 for allegedly being obvious in view of the combined subject matter disclosed in U.S. Patent 5,635,919 to Schier (hereinafter “Schier”) and U.S. Patent 5,910,647 to Kats et al. (hereinafter “Kats”).

Claim 1 recites a sensor that includes a signal source and a signal detector. The signal source and the signal detector are mounted on different substrates. In addition, the sensor includes a control unit connected to the signal source, the signal detector, and the evaluation unit, wherein the signal source, signal detector and the evaluation unit can each be individually turned on and off by the control unit.

The Official Action alleges that a person of ordinary skill in the art at the time of the present invention would have modified Schier based upon the teachings of Kats. Specifically, it is alleged that a skilled person would have modified the system disclosed in Schier to use two substrates as claimed (Official Action, pg. 4). It is then concluded “[t]herefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate two separate substrates with a transmitter and a receiver mounted respectively as shown in Kats in the sensing apparatus of Schier for providing a means for realizing a position determining apparatus that is suitable for use in multiple dimensions.” (Official Action, pg. 4).

There is nothing of the record to indicate why a skilled person would have modified Schier based upon Kats as suggested in the Official Action. An obviousness rejection must include a statement regarding where the alleged suggestion is in prior art. “*Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination.*” In re Geiger, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987). “*Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, [t]he mere fact that the prior*

art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.'" In re Laskowski, 10 U.S.P.Q.2d 1397, 1398 (Fed. Cir. 1989), citing In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). In addition, "[w]hen the incentive to combine the teachings of the references is not readily apparent, it is the duty of the examiner to explain why the combination of the reference teachings is proper." Ex parte Stone, 2 U.S.P.Q.2d 1788, 1790 (Bd.App. & Int'f 1986) (emphasis added).

As noted above, it is fundamental that obviousness can not be established absent some teaching to combine the references, or a suggestion or incentive supporting the combination of references. See In re Geiger, at 1278 (Fed. Cir. 1987). In the instant case the Official Action is lacking the necessary factual, non-conclusionary explanation why the combination of the Schier and Kats is proper. The Official Action merely concludes that the motivation may relate to providing means for realizing a position determining apparatus that is suitable for use in multiple dimensions (see Official Action, pg. 4). However, means for realizing a position determining apparatus that is suitable for use in multiple dimensions is not recited in the claimed invention! Therefore, this can not be considered to a proper reason to combine the references. Hence, it is respectfully submitted that a prima facie case of obviousness has not been presented since there is no proper teaching, suggestion or incentive that would lead one of ordinary skill in the art to modify Schier based upon the teachings of Kats to create the claimed invention.

In addition, Schier relates to system that uses an electro-optic sensor (see Schier FIG. 2), whereas Kats relates to a system that employs ultrasonic sound waves. That is, Kats relates to a surface acoustic wave (SAW) device. Schier and Kats are completely different art areas, and Kats of course does not even relate to devices mounted on a semiconductive substrate. Kats uses a piezoelectric substrate which is not a semiconductive substrate.

It is recognized that even if Schier and Kats were properly combinable, the resultant combination still fails to disclose *"a control unit is connected to the signal source, the signal detector, and the evaluation unit, wherein the signal source, signal detector and the evaluation unit can each be individually turned on and off by the control unit."* (cl. 1). (see Official Action, pg. 4). It is then alleged that *"...one of ordinary skill in the art at the time the invention was made to include a switching mechanism connected to any electronic device within a system of engaging in the repairing and/or replacing of the respective electrical element."* (Official Action, pg. 4). However, the repair and/or replacing of the respective electrical element is irrelevant to the claimed invention. Since the invention relates to a semiconductive sensor device, repair or replacement of components of the semiconductor is essentially impossible. If a component of a semiconductor is defective, the entire semiconductor is removed and replaced – not just the defective component of the semiconductor. Therefore, the rationale that attempts to support the suggestion regarding why a skilled person would modify the combined teachings of Schier and Kats is improper.

8. Claims 12 and 14 currently stand rejected under 35 U.S.C. §103 for allegedly being obvious in view of the combined subject matter disclosed in Schier, Kats and further in view of U.S. Patent 5,689,107 to Hsu (hereinafter "Hsu").

It is respectfully submitted that this rejection is moot, since claim 1 is patentable for at least the reasons set forth above.

For all the foregoing reasons, reconsideration and allowance of claims 1-18 is respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,

A handwritten signature in cursive script, reading "Patrick O'Shea", written over a horizontal line.

Patrick J. O'Shea
Registration No. 35,305
Samuels, Gauthier & Stevens LLP
225 Franklin Street, Suite 3300
Boston, Massachusetts 02110
Telephone: (617) 426-9180 x121